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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.08/NNK/CUBE/2014-15 20.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Mr. N. Naveen Kumar,** Contractor, Bangalore.
Name of the work	: Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.
Reference	: AEE/KH/WO/602/2014-15 Dated: 09.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.08.2014	20.09.2014	8.289	486.5	21.62
2	23.08.2014	20.09.2014	8.350	507.3	22.55
3	23.08.2014	20.09.2014	8.465	519.3	23.08

Note:

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JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.08/NNK/CUBE/2014-15 18.09.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. N. Naveen Kumar,** Contractor, Bangalore.

Name of the work : Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.

Reference : AEE/KH/WO/602/2014-15 Dated: 09.08.2014

Sample ID : Covering Slab Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	21.08.2014	18.09.2014	8.127	475.5	21.13
2	21.08.2014	18.09.2014	8.265	505.6	22.47
3	21.08.2014	18.09.2014	8.315	526.3	23.39

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Job No.: CTCE/BBMP/W.No.08/NNK/CUBE/2014-15 20.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Mr. N. Naveen Kumar,** Contractor, Bangalore.
Name of the work	: Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.
Reference	: AEE/KH/WO/602/2014-15 Dated: 09.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.08.2014	20.09.2014	8.125	480.2	21.34
2	23.08.2014	20.09.2014	8.298	492.3	21.88
3	23.08.2014	20.09.2014	8.325	502.3	22.32

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Job No.: CTCE/BBMP/W.No.08/NNK/CUBE/2014-15 20.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Mr. N. Naveen Kumar,** Contractor, Bangalore.
Name of the work	: Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.
Reference	: AEE/KH/WO/602/2014-15 Dated: 09.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.08.2014	20.09.2014	8.130	475.5	21.13
2	23.08.2014	20.09.2014	8.260	505.3	22.46
3	23.08.2014	20.09.2014	8.398	516.3	22.95

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Job No.: CTCE/BBMP/W.No.08/NNK/CUBE/2014-15 20.09.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. N. Naveen Kumar,** Contractor, Bangalore.

Name of the work : Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.

Reference : AEE/KH/WO/602/2014-15 Dated: 09.08.2014

Sample ID : Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.08.2014	20.09.2014	8.190	486.3	21.61
2	23.08.2014	20.09.2014	8.287	506.3	22.50
3	23.08.2014	20.09.2014	8.310	523.3	23.26

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Job No.: CTCE/BBMP/W.No.08/NNK/CEMENT/2014-15

Date: 13.08.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer**, Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. N. Naveen Kumar**, Contractor, Bangalore.
NAME OF THE WORK	:	Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.
REFERENCE	:	AEE/KH/WO/602/2014-15 Dated: 09.08.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	155 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	480 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	26.50 %	-

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Job No.: CTCE/BBMP/W.No.08/NNK/SAND/2014-15 : 13.08.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. N. Naveen Kumar,** Contractor, Bangalore.

Name of Work : Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.

Reference : AEE/KH/WO/602/2014-15 Dated: 09.08.2014

Date of Testing : 13.08.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	96	4.80	4.80	95.2	90-100
2.36	204	10.20	15.00	85.0	75-100
1.18	352	17.60	32.60	67.4	55-90
600 Micron	534	26.70	59.30	40.7	35-59
300 Micron	496	24.80	84.10	15.9	8-30
150 Micron	261	13.05	97.15	2.9	0-10

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Job No.: CTCE/BBMP/W.No.08/NNK/AGG/2014-15 : 13.08.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. N. Naveen Kumar,** Contractor, Bangalore.

Name of Work : Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.

Reference : AEE/KH/WO/602/2014-15 Dated: 09.08.2014

Date of Testing : 13.08.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms 25000

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	990	3.96	3.96	96.04	95-100
20	16235	64.94	68.90	31.10	30-70
10	4899	19.60	88.50	11.50	10-35
4.75	2515	10.06	98.56	1.44	0-5

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Job No.: CTCE/BBMP/W.No.08/NNK /STEEL/2014-15 13.08.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Mr. N. Naveen Kumar**, Contractor, Bangalore..
Name of the Work	:	Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.
Reference	:	AEE/KH/WO/602/2014-15 Dated: 09.08.2014
Date of Test	:	13.08.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	514	547	13.05	O.K	O.K

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Job No.: CTCE/BBMP/W.No.08/NNK/CUBE/2014-15 20.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Mr. N. Naveen Kumar,** Contractor, Bangalore.
Name of the work	: Construction of cement concrete road and improvements of drains in Kodigehalli, Gangabhavani colony in Ward No.08,(Kodigehalli), Kodigehalli Sub Division BBMP, Bangalore.
Reference	: AEE/KH/WO/602/2014-15 Dated: 09.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.08.2014	20.09.2014	8.138	479.3	21.30
2	23.08.2014	20.09.2014	8.245	489.6	21.76
3	23.08.2014	20.09.2014	8.384	497.8	22.12

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